

Sequence Listing

<110> Baker, Kevin
 Botstein, David
 Eaton, Dan
 Ferrara, Napoleone
 Filvaroff, Ellen
 Gerritsen, Mary
 Goddard, Audrey
 Godowski, Paul
 Grimaldi, Christopher
 Gurney, Austin
 Hillan, Kenneth
 Kljavin, Ivar
 Napier, Mary
 Roy, Margaret
 Tumas, Daniel
 Wood, William

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
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gtagtacatg gtggataact tctactttta ggaggactac tctcttctga 200
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cctattattc ctggctttgt gctctgcaa acccttcttt agcccttcac 300
acatcgact gaagaatatg atgctgaagg atatggaaga cacagatgat 350
gatgatgatg atgatgatga tgatgatgat gatgaggaca actctctttt 400
tccaacaaga gagccaagaa gccattttt tccatttgat ctgtttcaa 450
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Leu	Lys	Asp	Met	Glu	Asp	Thr	Asp	Asp	Asp	Asp	Asp	Asp	Asp	Asp	
				35					40					45	
Asp	Asp	Asp	Asp	Asp	Glu	Asp	Asn	Ser	Leu	Phe	Pro	Thr	Arg	Glu	
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Pro	Arg	Ser	His	Phe	Phe	Pro	Phe	Asp	Leu	Phe	Pro	Met	Cys	Pro	
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Ile	Glu	Pro	Gly	Ala	Phe	Glu	Gly	Val	Thr	Val	Phe	His	Ile	Arg	215	220	225
Ile	Ala	Glu	Ala	Lys	Leu	Thr	Ser	Val	Pro	Lys	Gly	Leu	Pro	Pro	230	235	240
Thr	Leu	Leu	Glu	Leu	His	Leu	Asp	Tyr	Asn	Lys	Ile	Ser	Thr	Val	245	250	255
Glu	Leu	Glu	Asp	Phe	Lys	Arg	Tyr	Lys	Glu	Leu	Gln	Arg	Leu	Gly	260	265	270
Leu	Gly	Asn	Asn	Lys	Ile	Thr	Asp	Ile	Glu	Asn	Gly	Ser	Leu	Ala	275	280	285
Asn	Ile	Pro	Arg	Val	Arg	Glu	Ile	His	Leu	Glu	Asn	Asn	Lys	Leu	290	295	300
Lys	Lys	Ile	Pro	Ser	Gly	Leu	Pro	Glu	Leu	Lys	Tyr	Leu	Gln	Ile	305	310	315
Ile	Phe	Leu	His	Ser	Asn	Ser	Ile	Ala	Arg	Val	Gly	Val	Asn	Asp	320	325	330
Phe	Cys	Pro	Thr	Val	Pro	Lys	Met	Lys	Lys	Ser	Leu	Tyr	Ser	Ala	335	340	345
Ile	Ser	Leu	Phe	Asn	Asn	Pro	Val	Lys	Tyr	Trp	Glu	Met	Gln	Pro	350	355	360
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<213> Home

<213> Homo Sapien

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35 40 45

Arg Gly Ala Ala Gly Cys Thr Phe Gly Gly Lys Val Tyr Ala Leu
50 55 60

Asp Glu Thr Trp His Pro Asp Leu Gly Gln Pro Phe Gly Val Met
65 70 75



Arg Cys Val Leu Cys Ala Cys Glu Ala Pro Gln Trp Gly Arg Arg
80 85 90

Thr Arg Gly Pro Gly Arg Val Ser Cys Lys Asn Ile Lys Pro Glu
95 100 105

Cys Pro Thr Pro Ala Cys Gly Gln Pro Arg Gln Leu Pro Gly His
110 115 120

Cys Cys Gln Thr Cys Pro Gln Glu Arg Ser Ser Ser Glu Arg Gln
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Pro Ser Gly Leu Ser Phe Glu Tyr Pro Arg Asp Pro Glu His Arg
140 145 150

Ser Tyr Ser Asp Arg Gly Glu Pro Gly Ala Glu Glu Arg Ala Arg
155 160 165

Gly Asp Gly His Thr Asp Phe Val Ala Leu Leu Thr Gly Pro Arg
170 175 180

Ser Gln Ala Val Ala Arg Ala Arg Val Ser Leu Leu Arg Ser Ser
185 190 195

Leu Arg Phe Ser Ile Ser Tyr Arg Arg Leu Asp Arg Pro Thr Arg
200 205 210

Ile Arg Phe Ser Asp Ser Asn Gly Ser Val Leu Phe Glu His Pro
215 220 225

Ala Ala Pro Thr Gln Asp Gly Leu Val Cys Gly Val Trp Arg Ala
230 235 240

Val Pro Arg Leu Ser Leu Arg Leu Leu Arg Ala Glu Gln Leu His
245 250 255

Val Ala Leu Val Thr Leu Thr His Pro Ser Gly Glu Val Trp Gly
260 265 270

Pro Leu Ile Arg His Arg Ala Leu Ala Ala Glu Thr Phe Ser Ala
275 280 285

Ile Leu Thr Leu Glu Gly Pro Pro Gln Gln Gly Val Gly Gly Ile
290 295 300

Thr Leu Leu Thr Leu Ser Asp Thr Glu Asp Ser Leu His Phe Leu
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320 325 330

Gln Val Pro Leu Arg Leu Gln Ile Leu His Gln Gly Gln Leu Leu
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350 355 360

Glu Val Leu Pro Asn Leu Thr Val Gln Glu Met Asp Trp Leu Val

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Thr	Gly	Ala	Ala	Gly 425	Ser	Ala	Ser	Leu	Thr 430	Leu	Leu	Gly	Asn	Gly 435	
Ser	Leu	Ile	Tyr	Gln 440	Val	Gln	Val	Val	Gly 445	Thr	Ser	Ser	Glu	Val 450	
Val	Ala	Met	Thr	Leu 455	Glu	Thr	Lys	Pro	Gln 460	Arg	Arg	Asp	Gln	Arg 465	
Thr	Val	Leu	Cys	His 470	Met	Ala	Gly	Leu	Gln 475	Pro	Gly	Gly	His	Thr 480	
Ala	Val	Gly	Ile	Cys 485	Pro	Gly	Leu	Gly	Ala 490	Arg	Gly	Ala	His	Met 495	
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Ala	Leu	Val	Leu	Pro 545	Pro	Val	Lys	Ser	Gln 550	Ala	Ala	Gly	His	Ala 555	
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Pro	Glu	Leu	Leu	Arg 620	His	Leu	Ala	Lys	Gly 625	Met	Ala	Ser	Leu	Met 630	
Ile	Thr	Thr	Lys	Gly 635	Ser	Pro	Arg	Gly	Glu 640	Leu	Arg	Gly	Gln	Val 645	
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<211> 737

<212> PRT

<213> Home

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35 40 45

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50 55 60

Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
65 70 75

Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
80 85 90

Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
95 100 105

Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

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Leu	Pro	Arg	Ser	Gln 170	Ala	Thr	Val	Thr	Leu 175	Pro	Thr	Trp	Gln	Pro 180	
Lys	Thr	Gly	Gln	Lys 185	Val	Val	Glu	Met	Lys 190	Trp	Asp	Gln	Val	Glu 195	
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Glu	Glu	Met	Leu	Ala 275	Leu	Gly	Asn	Asn	His 280	Phe	Ile	Gly	Phe	Val 285	
Asn	Asp	Ser	Val	Thr 290	Lys	Ser	Ile	Val	Ala 295	Leu	Arg	Leu	Thr	Leu 300	
Val	Val	Lys	Val	Ser 305	Thr	Cys	Val	Pro	Gly 310	Glu	Ser	His	Ala	Asn 315	
Asp	Leu	Glu	Cys	Ser 320	Gly	Lys	Gly	Lys	Cys 325	Thr	Thr	Lys	Pro	Ser 330	
Glu	Ala	Thr	Phe	Ser 335	Cys	Thr	Cys	Glu	Glu 340	Gln	Tyr	Val	Gly	Thr 345	
Phe	Cys	Glu	Glu	Tyr 350	Asp	Ala	Cys	Gln	Arg 355	Lys	Pro	Cys	Gln	Asn 360	
Asn	Ala	Ser	Cys	Ile 365	Asp	Ala	Asn	Glu	Lys 370	Gln	Asp	Gly	Ser	Asn 375	
Phe	Thr	Cys	Val	Cys 380	Leu	Pro	Gly	Tyr	Thr 385	Gly	Glu	Leu	Cys	Gln 390	
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18

695

700

705

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tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggatgaagg 200

cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagggttcag 250

gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300

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gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttctgggta tactggagag 450

ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 19

<211> 508

<212> DNA

<213> Homo Sapien

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tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggagaagg 200

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gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttctgggtta tactggagag 450

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taggggag 508

<210> 20

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 20

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<210> 21

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 21

ctcagttcgg ttggcaaagc tctc 24

<210> 22

<211> 69

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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cagtgtctccc tcatagatgg acgaaagtgt gacccccctt tcaggcgaga 50

gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

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cagcaccag ggctgcaag agcaggcacg ggccctgatg cgggacttcc 200

cgctcgtgga cggccacaac gacctgccc tggctctaag gcaggtttac 250

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cagcctggac aggcttagag atggcctcgt gggcgcccag ttctggtcag 350

cctatgtgcc atgccagacc caggaccggg atgcctgcg cctcaccctg 400

gagcagattg acctatacg ccgcatgtgt gcctctatt ctgagctgga 450

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ataccgggtc ctgatagagg agttgctgag tcgtggctgg agtgaggaag 1100

agcttcaggg tgtccttcgt ggaaacctgc tgcgggtctt cagacaagtg 1150

1. The first group of students (Group A) was assigned to the traditional lecture method. They received a 10-minute lecture on the topic of "The Role of the Teacher in the Classroom." The lecture was delivered by the teacher, who stood at the front of the room and spoke to the students.

2. The second group of students (Group B) was assigned to the interactive lecture method. They received a 10-minute lecture on the same topic, but the teacher used a variety of techniques to engage the students, including asking questions, using handouts, and encouraging discussion.

3. The third group of students (Group C) was assigned to the small group discussion method. They were divided into groups of four and given 10 minutes to discuss the topic of "The Role of the Teacher in the Classroom." The teacher acted as a facilitator, providing guidance and feedback.

4. The fourth group of students (Group D) was assigned to the role-play method. They were given 10 minutes to act out a scene in which they were the teacher and the students. The teacher provided feedback on their performance.

5. The fifth group of students (Group E) was assigned to the self-reflection method. They were given 10 minutes to reflect on their own experiences as students and teachers. The teacher provided feedback on their reflections.

6. The sixth group of students (Group F) was assigned to the peer-review method. They were given 10 minutes to review each other's work. The teacher provided feedback on their reviews.

7. The seventh group of students (Group G) was assigned to the self-assessment method. They were given 10 minutes to assess their own learning. The teacher provided feedback on their assessments.

8. The eighth group of students (Group H) was assigned to the peer-assessment method. They were given 10 minutes to assess each other's learning. The teacher provided feedback on their assessments.

9. The ninth group of students (Group I) was assigned to the self-reflection and peer-review method. They were given 10 minutes to reflect on their own experiences and review each other's work. The teacher provided feedback on their reflections and reviews.

10. The tenth group of students (Group J) was assigned to the self-reflection and peer-assessment method. They were given 10 minutes to reflect on their own experiences and assess each other's learning. The teacher provided feedback on their reflections and assessments.

<211> 433

<213> Homo Sapien

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65 70 75

Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90

Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105

Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120

Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135

Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150

Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165

Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180



Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala
185 190 195

Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser
200 205 210

Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val
215 220 225

Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg
230 235 240

Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly
245 250 255

Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro
260 265 270

Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys
275 280 285

Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp
290 295 300

Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
305 310 315

Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu
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335 340 345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
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Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375

Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390

Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
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Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu
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<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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Ala	Gln	Phe	Trp	Ser	Ala	Tyr	Val	Pro	Cys	Gln	Thr	Gln	Asp	Arg			
				80					85					90			
Asp	Ala	Leu	Arg	Leu	Thr	Leu	Glu	Gln	Ile	Asp	Leu	Ile	Arg	Arg			
				95					100					105			
Met	Cys	Ala	Ser	Tyr	Ser	Glu	Leu	Glu	Leu	Val	Thr	Ser	Ala	Lys			
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Ala	Leu	Asn	Asp	Thr	Gln	Lys	Leu	Ala	Cys	Leu	Ile	Gly	Val	Glu			
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Gly	Gly	His	Ser	Leu	Asp	Asn	Ser	Leu	Ser	Ile	Leu	Arg	Thr	Phe			
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Tyr	Met	Leu	Gly	Val	Arg	Tyr	Leu	Thr	Leu	Thr	His	Thr	Cys	Asn			
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Thr	Pro	Trp	Ala	Glu	Ser	Ser	Ala	Lys	Gly	Val	His	Ser	Phe	Tyr			
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Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser			
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Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val			
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Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg			
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Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro			
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Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys			
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Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr			
				305					310					315			
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu			
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Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg			
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 35 40 45
 Gln Asp Pro Thr Leu Leu Ile Gly Ser Ser Leu Leu Ala Thr Cys
 50 55 60

Ser	Val	His	Gly	Asp 65	Pro	Pro	Gly	Ala	Thr 70	Ala	Glu	Gly	Leu	Tyr 75
Trp	Thr	Leu	Asn	Gly 80	Arg	Arg	Leu	Pro	Pro 85	Glu	Leu	Ser	Arg	Val 90
Leu	Asn	Ala	Ser	Thr 95	Leu	Ala	Leu	Ala	Leu 100	Ala	Asn	Leu	Asn	Gly 105
Ser	Arg	Gln	Arg	Ser 110	Gly	Asp	Asn	Leu	Val 115	Cys	His	Ala	Arg	Asp 120
Gly	Ser	Ile	Leu	Ala 125	Gly	Ser	Cys	Leu	Tyr 130	Val	Gly	Leu	Pro	Pro 135
Glu	Lys	Pro	Val	Asn 140	Ile	Ser	Cys	Trp	Ser 145	Lys	Asn	Met	Lys	Asp 150
Leu	Thr	Cys	Arg	Trp 155	Thr	Pro	Gly	Ala	His 160	Gly	Glu	Thr	Phe	Leu 165
His	Thr	Asn	Tyr	Ser 170	Leu	Lys	Tyr	Lys	Leu 175	Arg	Trp	Tyr	Gly	Gln 180
Asp	Asn	Thr	Cys	Glu 185	Glu	Tyr	His	Thr	Val 190	Gly	Pro	His	Ser	Cys 195
His	Ile	Pro	Lys	Asp 200	Leu	Ala	Leu	Phe	Thr 205	Pro	Tyr	Glu	Ile	Trp 210
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Thr	Leu	Asp	Ile	Leu 230	Asp	Val	Val	Thr	Thr 235	Asp	Pro	Pro	Pro	Asp 240
Val	His	Val	Ser	Arg 245	Val	Gly	Gly	Leu	Glu 250	Asp	Gln	Leu	Ser	Val 255
Arg	Trp	Val	Ser	Pro 260	Pro	Ala	Leu	Lys	Asp 265	Phe	Leu	Phe	Gln	Ala 270
Lys	Tyr	Gln	Ile	Arg 275	Tyr	Arg	Val	Glu	Asp 280	Ser	Val	Asp	Trp	Lys 285
Val	Val	Asp	Asp	Val 290	Ser	Asn	Gln	Thr	Ser 295	Cys	Arg	Leu	Ala	Gly 300
Leu	Lys	Pro	Gly	Thr 305	Val	Tyr	Phe	Val	Gln 310	Val	Arg	Cys	Asn	Pro 315
Phe	Gly	Ile	Tyr	Gly 320	Ser	Lys	Lys	Ala	Gly 325	Ile	Trp	Ser	Glu	Trp 330
Ser	His	Pro	Thr	Ala 335	Ala	Ser	Thr	Pro	Arg 340	Ser	Glu	Arg	Pro	Gly 345
Pro	Gly	Gly	Gly	Ala	Cys	Glu	Pro	Arg	Gly	Gly	Glu	Pro	Ser	Ser

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365	370	375
Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln		
380	385	390
Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp		
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Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro		
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Ala Arg		

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 <223> Synthetic oligonucleotide probe

<400> 35
 caagtgcgct gcaacccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36
 <211> 1771
 <212> DNA
 <213> Homo Sapien

<400> 36
 cccacgcgtc cgctgggtgtt agatcgagca accctctaaa agcagtttag 50

0944450 033004

agtggtaaaa aaaaaaaaaa acacacccaaa cgctcgcagc cacaaaagg 100
atgaaatttc ttctggacat cctcctgctt ctcccgttac tgatcgtctg 150
ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350
gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatttt 450
agtaaataat gctgggtgtag tctatacatc agatttgttt gctacacaag 500
atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600
tgtcactgtg gcttcggcag ctggacatgt ctcggtcccc ttcttactgg 650
cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
tcctaatttc gtaaacactg gcttcatcaa aaatccaagt acaagtttgg 800
gaccactct ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
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aaatcagtgat taagtttgat gcagttattg gatataaaat gaaagcgcaa 1000
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aaaatttgta ccataaccgt ttatttaaca tatattttta tttttgattg 1350
cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
agaaacttca agctctctaa ataaaatgaa ggactatata tagtggtatt 1450
tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctaccatt 1500

gccactctgt ttctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagagggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650
taaatggatc acacttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
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aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37
Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Leu Pro Leu Leu Ile
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Val Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg
20 25 30
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

200	205	210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe		
215	220	225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu		
230	235	240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys		
245	250	255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu		
260	265	270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile		
275	280	285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln		
290	295	300

<210> 38
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 38
 ggtgaaggca gaaattggag atg 23

 <210> 39
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 39
 atcccatgca tcagcctgtt tacc 24

 <210> 40
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 40
 gctgggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

 <210> 41
 <211> 1377
 <212> DNA
 <213> Homo Sapien



<400> 41

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gaaccaggac tggggtgacg gcagggcagg gggcgcttg ccggggagaa 100
gcgcgggggc tggagacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgcca gaggaccccg 200
gcgtccgggc tcccgtgccc agcgctatga ggccactcct cgtcctgctg 250
ctcctgggccc tggcgggccg ctgcggccca ctggacgaca acaagatccc 300
cagcctctgc ccggggcacc ccggccttcc aggcacgccg ggccaccatg 350
gcagccaggg cttgccgggc cgcgatggcc gcgacggccg cgacggcgcg 400
cccggggctc cgggagagaa aggcgagggc gggaggcccg gactgccggg 450
acctcgaggg gaccccgggc cgcgaggaga ggcgggaccc gcggggccca 500
ccgggcctgc cggggagtgc tcgggtgcctc cgcgatccgc cttcagcgcc 550
aagcgctccg agagccgggt gcctccgccg tctgacgcac ctttgccctt 600
cgaccgcgtg ctggtgaacg agcagggaca ttacgacgcc gtcaccggca 650
agtccacctg ccagggtgcct ggggtctact acttcgccgt ccatgccacc 700
gtctaccggg ccagcctgca gtttgatctg gtgaagaatg gcgaatccat 750
tgctcttttc ttccagtttt tcgggggggtg gcccaagcca gcctcgctct 800
cggggggggc catggtgagg ctggagcctg aggaccaagt gtgggtgcag 850
gtgggtgtgg gtgactacat tggcatctat gccagcatca agacagacag 900
caccttctcc ggatttctgg tgtactccga ctggcacagc tccccagtct 950
ttgcttagtg ccactgcaa agtgagctca tgetctcact cctagaagga 1000
gggtgtgagg ctgacaacca ggtcatccag gagggctggc cccctggaa 1050
tattgtgaat gactagggag gtggggtaga gcactctccg tcctgctgct 1100
ggcaaggaat gggaacagtg gctgtctgcg atcaggctctg gcagcatggg 1150
gcagtggctg gatttctgcc caagaccaga ggagtgtgct gtgctggcaa 1200
gtgtaagtcc ccagttgct ctgggccagg agcccacggg ggggtgctct 1250
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aaaaaaaaa aaaaaaaaaa aaaaaaa 1377

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

Met	Arg	Pro	Leu	Leu	Val	Leu	Leu	Leu	Gly	Leu	Ala	Ala	Gly	1	5	10	15	
Ser	Pro	Pro	Leu	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly	20	25	30		
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly	35	40	45	
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly	50	55	60	
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly	65	70	75	
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly	80	85	90	
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala	95	100	105	
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp	110	115	120	
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His	125	130	135	
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val	140	145	150	
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln	155	160	165	
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln	170	175	180	
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala	185	190	195	
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly	200	205	210	
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser	215	220	225	
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro	230	235	240	
Val	Phe	Ala																

<210> 43
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 43
 tacaggccca gtcaggacca gggg 24

 <210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 44
 agccagcctc gctctcgg 18

 <210> 45
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 45
 gtctgcatc aggtctgg 18

 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 46
 gaaagaggca atggattcgc 20

 <210> 47
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 47
 gacttacact tgccagcaca gcac 24

 <210> 48
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccattgctgca tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctcttgccc tccttggcac cacctgggca 200
gaggtgtggc caccacagct gcaggagcag gctccgatgg ccggagccct 250
gaacaggaag gagagtttct tgctcctctc cctgcacaac cgctgcgca 300
gttgggtcca gcccctgctg gctgacatgc ggaggctgga ctggagtgc 350
agcctggccc aactggctca agccaggga gccctctgtg gaatcccaac 400
cccgagcctg gcattcggcc tgtggcgcac cctgcaagtg ggctggaaca 450
tgcagctgtt gcccggggc ttggcgctct ttgttgaagt ggtcagccta 500
tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550
caacgccacc tgcacccact acacgcagct cgtgtggggc acctcaagcc 600
agctgggctg tggggcgcac ctgtgctctg caggccagac agcgatagaa 650
gcctttgtct gtgcctactc ccccgagggc aactgggagg tcaacgggaa 700
gacaatcatt cctataaga aggggtgctg gtgttcgctc tgcacagcca 750
gtgtctcagg ctgtttcaaa gcctgggacc atgcaggggg gctctgtgag 800
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gagtgctcgt gcgtctgtga catcggctac gggggagccc agtgtgccac 1000
caaggtgcat ttcccttcc acacctgtga cctgaggatc gacggagact 1050
gcttcatggt gtcttcagag gcagacacct attacagagc caggatgaaa 1100
tgtcagagga aaggcggggg gctggcccag atcaagagcc agaaagtgc 1150

[illegible]

<211> 455

<213> Homo Sapien

Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
1 5 10 15

Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
20 25 30

Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
35 40 45

Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
50 55 60

Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
65 70 75

Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
80 85 90

Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
95 100 105

38

				110					115					120
Val	Glu	Val	Val	Ser 125	Leu	Trp	Phe	Ala	Glu 130	Gly	Gln	Arg	Tyr	Ser 135
His	Ala	Ala	Gly	Glu 140	Cys	Ala	Arg	Asn	Ala 145	Thr	Cys	Thr	His	Tyr 150
Thr	Gln	Leu	Val	Trp 155	Ala	Thr	Ser	Ser	Gln 160	Leu	Gly	Cys	Gly	Arg 165
His	Leu	Cys	Ser	Ala 170	Gly	Gln	Thr	Ala	Ile 175	Glu	Ala	Phe	Val	Cys 180
Ala	Tyr	Ser	Pro	Gly 185	Gly	Asn	Trp	Glu	Val 190	Asn	Gly	Lys	Thr	Ile 195
Ile	Pro	Tyr	Lys	Lys 200	Gly	Ala	Trp	Cys	Ser 205	Leu	Cys	Thr	Ala	Ser 210
Val	Ser	Gly	Cys	Phe 215	Lys	Ala	Trp	Asp	His 220	Ala	Gly	Gly	Leu	Cys 225
Glu	Val	Pro	Arg	Asn 230	Pro	Cys	Arg	Met	Ser 235	Cys	Gln	Asn	His	Gly 240
Arg	Leu	Asn	Ile	Ser 245	Thr	Cys	His	Cys	His 250	Cys	Pro	Pro	Gly	Tyr 255
Thr	Gly	Arg	Tyr	Cys 260	Gln	Val	Arg	Cys	Ser 265	Leu	Gln	Cys	Val	His 270
Gly	Arg	Phe	Arg	Glu 275	Glu	Glu	Cys	Ser	Cys 280	Val	Cys	Asp	Ile	Gly 285
Tyr	Gly	Gly	Ala	Gln 290	Cys	Ala	Thr	Lys	Val 295	His	Phe	Pro	Phe	His 300
Thr	Cys	Asp	Leu	Arg 305	Ile	Asp	Gly	Asp	Cys 310	Phe	Met	Val	Ser	Ser 315
Glu	Ala	Asp	Thr	Tyr 320	Tyr	Arg	Ala	Arg	Met 325	Lys	Cys	Gln	Arg	Lys 330
Gly	Gly	Val	Leu	Ala 335	Gln	Ile	Lys	Ser	Gln 340	Lys	Val	Gln	Asp	Ile 345
Leu	Ala	Phe	Tyr	Leu 350	Gly	Arg	Leu	Glu	Thr 355	Thr	Asn	Glu	Val	Thr 360
Asp	Ser	Asp	Phe	Glu 365	Thr	Arg	Asn	Phe	Trp 370	Ile	Gly	Leu	Thr	Tyr 375
Lys	Thr	Ala	Lys	Asp 380	Ser	Phe	Arg	Trp	Ala 385	Thr	Gly	Glu	His	Gln 390
Ala	Phe	Thr	Ser	Phe 395	Ala	Phe	Gly	Gln	Pro 400	Asp	Asn	His	Gly	Leu 405

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 51
aggaacttct ggatcgggct cacc 24

<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 52
gggtctgggc caggtggaag agag 24

<210> 53
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
gccaaggact cttccgctg ggccacagg gagcaccagg ccttc 45

<210> 54
<211> 2331
<212> DNA
<213> Homo Sapien

<400> 54
cggacgcgtg ggctgggcgc tgcaaagcgt gtcccgccgg gtccccgagc 50
gtcccgccgc ctgccccgc catgctctg ctgctggggc tgtgcctggg 100
gctgtccctg tgtgtggggc cgcaggaaga ggcgcagagc tggggccact 150
cttcggagca ggatggactc aggggtcccga ggcaagtcag actgttgacg 200

aggctgaaaa	ccaaaccttt	gatgacagaa	ttctcagtga	agtctaccat	250
catttccccgt	tatgccttca	ctacggtttc	ctgcagaatg	ctgaacagag	300
cttctgaaga	ccaggacatt	gagttccaga	tgcagattcc	agctgcagct	350
ttcatcacca	acttcactat	gcttattgga	gacaagggtg	atcagggcga	400
aattacagag	agagaaaaga	agagtgggtga	tagggtaaaa	gagaaaagga	450
ataaaaccac	agaagaaaat	ggagagaagg	ggactgaaat	attcagagct	500
tctgcagtga	ttcccagcaa	ggacaaagcc	gcctttttcc	tgagttatga	550
ggagcttctg	cagaggcgcc	tgggcaagta	cgagcacagc	atcagcgtgc	600
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agcgcgggca	tgcctccct	ggaggtgctg	ccgcttcaca	acagcaggca	700
gaggggagct	gggcgcgggg	aagatgattc	tgggcctccc	ccatctactg	750
tcattaacca	aatgaaaca	tttgccaaca	taatttttaa	acctactgta	800
gtacaacaag	ccaggattgc	ccagaatgga	attttgggag	actttatcat	850
tagatatgac	gtcaatagag	aacagagcat	tggggacatc	caggtttctaa	900
atggctattt	tgtgactac	tttgetccta	aagaccttcc	tcctttaccc	950
aagaatgtgg	tattcgtgct	tgacagcagt	gcttctatgg	tgggaaccaa	1000
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cccaggaccg	tttcagtatc	attggatttt	ccaaccggat	caaagtatgg	1100
aaggaccact	tgatatcagt	cactccagac	agcatcaggg	atgggaaagt	1150
gtacattcac	catatgtcac	ccactggagg	cacagacatc	aacggggccc	1200
tgcagagggc	catcaggctc	ctcaacaagt	acgtggccca	cagtggcatt	1250
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cccgaggcca	agtctgcac	ttcaccattg	gcatcggcaa	cgacgtggac	1400
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cgtgcacgag	gaggaggacg	caggctcgca	gctcatcggg	ttctacgatg	1500
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TOP SECRET 090000

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tcccacgcat ggatggcctg gaggaggccc acggcatgtc ggctgccatg 2000
ggacccgaac cgggtgtgca gagcgtgcga ggagctggca cgcagccagg 2050
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aaaaaagaca tgggagagat ggtgtttttc ctctccacca cctggggata 2150
cgatgagaag atggccacct gcaagccagg aagacggccc tcaccagaca 2200
ccatgtctgc tggcaccttg atcttgacc tcccagctc cagaactgtg 2250
agaaataaat gtgttttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
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Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30
Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

43

[illegible]

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccgggtc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatata agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

<400> 60
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ccagtgtgctg gcggcagcgg cggcggcggc gcctcccggg ctccggcttc 100
tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgaccat 200

cagttgccaa	gtcaataaga	gtgacgactc	tgtgattcag	ctactgaatc	250
ccaacaggca	gaccatttat	ttcagggact	tcaggccttt	gaaggacagc	300
aggtttcagt	tgctgaattt	ttctagcagt	gaactcaaag	tatcattgac	350
aaacgtctca	atttctgatg	aaggaagata	cttttgccag	ctctataaccg	400
atccccaca	ggaaagtta	accaccatca	cagtcctggt	cccaccacgt	450
aatctgatga	tcgatatcca	gaaagacact	gcggtggaag	gtgaggagat	500
tgaagtcaac	tgacttgcta	tggccagcaa	gccagccacg	actatcaggt	550
ggttcaaagg	gaacacagag	ctaaaaggca	aatcgagggt	ggaagagtgg	600
tcagacatgt	acactgtgac	cagtcagctg	atgctgaagg	tgcacaagga	650
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gaaacctgca	gaccagcgg	tatctagaag	tacagtataa	gcctcaagtg	750
cacattcaga	tgacttatcc	tctacaaggc	ttaaccggg	aaggggacgc	800
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acagtqatat	tqq	1413			

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Phe	Ser	Ala	Ala	35	Leu	Ile	Pro	Thr	40	Gly	Asp	Gly	Gln	Asn	45
Phe	Thr	Lys	Asp	50	Val	Thr	Val	Ile	55	Glu	Gly	Glu	Val	Ala	60
Ser	Cys	Gln	Val	65	Asn	Lys	Ser	Asp	70	Asp	Ser	Val	Ile	Gln	75
Asn	Pro	Asn	Arg	80	Gln	Thr	Ile	Tyr	85	Arg	Asp	Phe	Arg	Pro	90
Lys	Asp	Ser	Arg	95	Phe	Gln	Leu	Leu	100	Asn	Phe	Ser	Ser	Ser	105
Lys	Val	Ser	Leu	110	Thr	Asn	Val	Ser	115	Ile	Ser	Asp	Glu	Gly	120
Phe	Cys	Gln	Leu	125	Tyr	Thr	Asp	Pro	130	Pro	Gln	Glu	Ser	Tyr	135
Ile	Thr	Val	Leu	140	Val	Pro	Pro	Arg	145	Asn	Leu	Met	Ile	Asp	150
Lys	Asp	Thr	Ala	155	Val	Glu	Gly	Glu	160	Glu	Ile	Glu	Val	Asn	165
Ala	Met	Ala	Ser	170	Lys	Pro	Ala	Thr	175	Thr	Ile	Arg	Trp	Phe	180
Asn	Thr	Glu	Leu	185	Lys	Gly	Lys	Ser	190	Glu	Val	Glu	Glu	Trp	195
Met	Tyr	Thr	Val	200	Thr	Ser	Gln	Leu	205	Met	Leu	Lys	Val	His	210
Asp	Asp	Gly	Val	215	Pro	Val	Ile	Cys	220	Gln	Val	Glu	His	Pro	225
Thr	Gly	Asn	Leu	230	Gln	Thr	Gln	Arg	235	Tyr	Leu	Glu	Val	Gln	240
Pro	Gln	Val	His	245	Ile	Gln	Met	Thr	250	Tyr	Pro	Leu	Gln	Gly	255
Arg	Glu	Gly	Asp	260	Ala	Leu	Glu	Leu	265	Thr	Cys	Glu	Ala	Ile	270
Pro	Gln	Pro	Val	275	Met	Val	Thr	Trp	280	Val	Arg	Val	Asp	Asp	285
Pro	Gln	His	Ala	290	Val	Leu	Ser	Gly	295	Pro	Asn	Leu	Phe	Ile	300
Leu	Asn	Lys	Thr	Asp	Asn	Gly	Thr	Tyr	Arg	Cys	Glu	Ala	Ser	Asn	

305	310	315
Ile Val Gly Lys Ala His Ser Asp Tyr	Met Leu Tyr Val Tyr Asp	
320	325	330
Pro Pro Thr Thr Ile Pro Pro Pro Thr	Thr Thr Thr Thr Thr Thr	
335	340	345
Thr Thr Thr Thr Thr Thr Ile Leu Thr	Ile Ile Thr Asp Ser Arg	
350	355	360
Ala Gly Glu Glu Gly Ser Ile Arg Ala	Val Asp His Ala Val Ile	
365	370	375
Gly Gly Val Val Ala Val Val Val Phe	Ala Met Leu Cys Leu Leu	
380	385	390
Ile Ile Leu Gly Arg Tyr Phe Ala Arg	His Lys Gly Thr Tyr Phe	
395	400	405
Thr His Glu Ala Lys Gly Ala Asp Asp	Ala Ala Asp Ala Asp Thr	
410	415	420
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425	430	435
Lys Glu Tyr Phe Ile		
440		

<210> 62
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 62
 ggcttctgct gttgctcttc tccg 24

 <210> 63
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 63
 gtacactgtg accagtcagc 20

 <210> 64
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

<400> 64
atcatcacag attcccgagc 20

<210> 65
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 65
ttcaatctcc tcaccttcca ccgc 24

<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien

<400> 68
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cctcgggccc gaccgcacag gaaagactga ggccgcggcc tgccccgcc 100
ggctccctgc gccgcgcgcg cctcccggga cagaagatgt gctccagggt 150
ccctctgctg ctgcgcgtgc tctgtctact ggccctgggg cctgggggtgc 200
agggctgccc atccggctgc cagtgcagcc agccacagac agtcttctgc 250
actgcccgcc aggggaccac ggtgccccga gacgtgccac ccgacacggt 300
ggggctgtac gtctttgaga acggcatcac catgctcgac gcaagcagct 350
ttgccggcct gccgggcctg cagctcctgg acctgtcaca gaaccagatc 400

gccagcctgc	gcctgccccg	cctgtctgctg	ctggacctca	gccacaacag	450
cctcctggcc	ctggagccccg	gcctcctgga	cactgccaac	gtggaggcgc	500
tgcggtctggc	tggctctgggg	ctgcagcagc	tggacgaggg	gctcttcagc	550
cgcttgcgca	acctccacga	cctggatgtg	tccgacaacc	agctggagcg	600
agtgccacct	gtgatccgag	gcctccgggg	cctgacgcgc	ctgcggctgg	650
ccggcaacac	ccgcattgcc	cagctgcggc	ccgaggacct	ggccggcctg	700
gctgcctgc	aggagctgga	tgtgagcaac	ctaagcctgc	aggccctgcc	750
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ttactccgtc	tgtgtcatgc	ctttggggcc	cgggcgggtg	ccggagggcg	1550
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gccccagtca	cccaggccccg	cgagggcaac	ctgccgctcc	tcattgcgcc	1650
cgccctggcc	gcggtgctcc	tggccgcgct	ggctgcggtg	ggggcagcct	1700
actgtgtgcg	gcggggggcg	gccatggcag	cagcggctca	ggacaaaggg	1750
caggtggggc	caggggctgg	gcccctggaa	ctggagggag	tgaaggtccc	1800
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[illegible]

<211> 598

<213> Homo Sapien

Met Cys Ser Arg Val Pro Leu Leu Leu Pro Leu Leu Leu Leu Leu
1 5 10 15

Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
35 40 45

Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
65 70 75

Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
95 100 105

51

				110					115					120
Ala	Leu	Arg	Leu	Ala 125	Gly	Leu	Gly	Leu	Gln 130	Gln	Leu	Asp	Glu	Gly 135
Leu	Phe	Ser	Arg	Leu 140	Arg	Asn	Leu	His	Asp 145	Leu	Asp	Val	Ser	Asp 150
Asn	Gln	Leu	Glu	Arg 155	Val	Pro	Pro	Val	Ile 160	Arg	Gly	Leu	Arg	Gly 165
Leu	Thr	Arg	Leu	Arg 170	Leu	Ala	Gly	Asn	Thr 175	Arg	Ile	Ala	Gln	Leu 180
Arg	Pro	Glu	Asp	Leu 185	Ala	Gly	Leu	Ala	Ala 190	Leu	Gln	Glu	Leu	Asp 195
Val	Ser	Asn	Leu	Ser 200	Leu	Gln	Ala	Leu	Pro 205	Gly	Asp	Leu	Ser	Gly 210
Leu	Phe	Pro	Arg	Leu 215	Arg	Leu	Leu	Ala	Ala 220	Ala	Arg	Asn	Pro	Phe 225
Asn	Cys	Val	Cys	Pro 230	Leu	Ser	Trp	Phe	Gly 235	Pro	Trp	Val	Arg	Glu 240
Ser	His	Val	Thr	Leu 245	Ala	Ser	Pro	Glu	Glu 250	Thr	Arg	Cys	His	Phe 255
Pro	Pro	Lys	Asn	Ala 260	Gly	Arg	Leu	Leu	Leu 265	Glu	Leu	Asp	Tyr	Ala 270
Asp	Phe	Gly	Cys	Pro 275	Ala	Thr	Thr	Thr	Thr 280	Ala	Thr	Val	Pro	Thr 285
Thr	Arg	Pro	Val	Val 290	Arg	Glu	Pro	Thr	Ala 295	Leu	Ser	Ser	Ser	Leu 300
Ala	Pro	Thr	Trp	Leu 305	Ser	Pro	Thr	Ala	Pro 310	Ala	Thr	Glu	Ala	Pro 315
Ser	Pro	Pro	Ser	Thr 320	Ala	Pro	Pro	Thr	Val 325	Gly	Pro	Val	Pro	Gln 330
Pro	Gln	Asp	Cys	Pro 335	Pro	Ser	Thr	Cys	Leu 340	Asn	Gly	Gly	Thr	Cys 345
His	Leu	Gly	Thr	Arg 350	His	His	Leu	Ala	Cys 355	Leu	Cys	Pro	Glu	Gly 360
Phe	Thr	Gly	Leu	Tyr 365	Cys	Glu	Ser	Gln	Met 370	Gly	Gln	Gly	Thr	Arg 375
Pro	Ser	Pro	Thr	Pro 380	Val	Thr	Pro	Arg	Pro 385	Pro	Arg	Ser	Leu	Thr 390
Leu	Gly	Ile	Glu	Pro 395	Val	Ser	Pro	Thr	Ser 400	Leu	Arg	Val	Gly	Leu 405

Gln Arg Tyr Leu	Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
410		420
Leu Thr Tyr Arg	Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr
425		435
Leu Arg Leu Pro	Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu
440		450
Arg Pro Asn Ala	Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro
455		465
Gly Arg Val Pro	Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr
470		480
Pro Pro Ala Val	His Ser Asn His Ala	Pro Val Thr Gln Ala Arg
485		495
Glu Gly Asn Leu	Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val
500		510
Leu Leu Ala Ala	Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg
515		525
Arg Gly Arg Ala	Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val
530		540
Gly Pro Gly Ala	Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro
545		555
Leu Glu Pro Gly	Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu
560		570
Pro Ser Gly Ser	Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly
575		585
Pro Gly Leu Gln	Ser Pro Leu His Ala	Lys Pro Tyr Ile
590		595

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccacccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccg tccacctgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgccc accgtccacc tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
ggcaactagga caaccttctt cctttctgca ccactgcccg tacccttacc 50
cgccccgcca cctccttget accccactct tgaaaccaca gctgttggca 100
gggtccccag ctcatgccag cctcatctcc tttcttgcta gccccaaaag 150
ggcctccagg caacatgggg ggcccagtca gagagccggc actctcagtt 200
gcccctctggt tgagttgggg gccagctctg ggggccgtgg cttgtgccat 250
ggctctgctg acccaacaaa cagagctgca gagcctcagg agagaggtga 300
gccggctgca ggggacagga ggcccctccc agaatgggga agggatatccc 350
tggcagagtc tcccggagca gagttccgat gccctggaag cctgggagaa 400

tggggagaga tccccgaaaa ggagagcagt gctcacccaa aaacagaaga 450
 agcagcactc tgtcctgcac ctggttccca ttaacgccac ctccaaggat 500
 gactccgatg tgacagaggt gatgtggcaa ccagctctta ggcgtgggag 550
 aggcctacag gccaaggat atggtgtccg aatccaggat gctggagttt 600
 atctgctgta tagccaggtc ctgtttcaag acgtgacttt caccatgggt 650
 caggtggtgt ctcgagaagg ccaaggaagg caggagactc tattccgatg 700
 tataagaagt atgccctccc acccggaccg ggcctacaac agctgctata 750
 ggcaggtgt cttccattta caccaagggg atattctgag tgcataatt 800
 ccccgggcaa gggcgaaact taacctctc ccacatggaa ccttcctggg 850
 gtttgtgaaa ctgtgattgt gttataaaaa gtggctccca gcttgaaga 900
 ccaggggtggg tacatactgg agacagccaa gagctgagta tataaaggag 950
 agggaaatgtg caggaacaga ggcactcttc tgggtttggc tccccgttcc 1000
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 cttgcttctg ttccccatgg agctccg 1077

<210> 76
 <211> 250
 <212> PRT
 <213> Homo Sapien

<400> 76
 Met Pro Ala Ser Ser Pro Phe Leu Leu Ala Pro Lys Gly Pro Pro
 1 5 10 15
 Gly Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala
 20 25 30
 Leu Trp Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala
 35 40 45
 Met Ala Leu Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg
 50 55 60
 Glu Val Ser Arg Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly
 65 70 75
 Glu Gly Tyr Pro Trp Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala
 80 85 90
 Leu Glu Ala Trp Glu Asn Gly Glu Arg Ser Arg Lys Arg Arg Ala
 95 100 105
 Val Leu Thr Gln Lys Gln Lys Lys Gln His Ser Val Leu His Leu
 110 115 120

Val	Pro	Ile	Asn	Ala	Thr	Ser	Lys	Asp	Asp	Ser	Asp	Val	Thr	Glu
			125						130					135
Val	Met	Trp	Gln	Pro	Ala	Leu	Arg	Arg	Gly	Arg	Gly	Leu	Gln	Ala
			140						145					150
Gln	Gly	Tyr	Gly	Val	Arg	Ile	Gln	Asp	Ala	Gly	Val	Tyr	Leu	Leu
			155						160					165
Tyr	Ser	Gln	Val	Leu	Phe	Gln	Asp	Val	Thr	Phe	Thr	Met	Gly	Gln
			170						175					180
Val	Val	Ser	Arg	Glu	Gly	Gln	Gly	Arg	Gln	Glu	Thr	Leu	Phe	Arg
			185						190					195
Cys	Ile	Arg	Ser	Met	Pro	Ser	His	Pro	Asp	Arg	Ala	Tyr	Asn	Ser
			200						205					210
Cys	Tyr	Ser	Ala	Gly	Val	Phe	His	Leu	His	Gln	Gly	Asp	Ile	Leu
			215						220					225
Ser	Val	Ile	Ile	Pro	Arg	Ala	Arg	Ala	Lys	Leu	Asn	Leu	Ser	Pro
			230						235					240
His	Gly	Thr	Phe	Leu	Gly	Phe	Val	Lys	Leu					
			245						250					

<210> 77
 <211> 2849
 <212> DNA
 <213> Homo Sapien

<400> 77
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 ggctgcagag acctcggaga ccgcgccggg gagacggagg tgctgtgggt 100
 ggggggggacc tgtggtctgt cgtaccgccc cccaccctcc tcttctgcac 150
 tgccgtcttc cggaagacct tttcccttgc tctgtttctt tcaccgagtc 200
 tgtgcatcgc cccggacctg gccgggagga ggcttgcccg gcgggagatg 250
 ctctagggggc ggcgcgggag gagcgccggc cgggacggag ggcccggcag 300
 gaagatgggc tcccgtagac agggactctt gctggcgtag tgccctgtcc 350
 ttgcctttgc ctctggcctg gtctgagtc gtgtgcccc tgtccagggg 400
 gaacagcagg agtgggaggg gactgaggag ctgccgtcgc ctccggacca 450
 tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
 aggggctccc tgcttcccgg tgcttgcgct gctgtgacct cggtacctcc 550
 atgtaccggc cgaccgccgt gcccagatc aacatcacta tcttgaaagg 600
 ggagaagggt gaccgcggag atcgaggcct ccaagggaaa tatggcaaaa 650

1. 1990年12月，中共中央、国务院作出《关于实行“以公有制为主体、多种所有制经济共同发展”方针的若干规定》，明确指出：“公有制为主体、多种所有制经济共同发展，是我国社会主义初级阶段的一项基本经济制度。”

<211> 281

<213> Homo Sapien

Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu
1 5 10 15

Gln Gly Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser
35 40 45

Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
65 70 75

Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
95 100 105

58

				110					115					120
Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser	Met	Gly
				125					130					135
Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser	Val
				140					145					150
Gly	Arg	Lys	Lys	Pro	Met	His	Ser	Asn	His	Tyr	Tyr	Gln	Thr	Val
				155					160					165
Ile	Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met
				170					175					180
Phe	Thr	Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe
				185					190					195
Ser	Leu	Asn	Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His
				200					205					210
Ile	Met	Lys	Asn	Glu	Glu	Glu	Val	Val	Ile	Leu	Phe	Ala	Gln	Val
				215					220					225
Gly	Asp	Arg	Ser	Ile	Met	Gln	Ser	Gln	Ser	Leu	Met	Leu	Glu	Leu
				230					235					240
Arg	Glu	Gln	Asp	Gln	Val	Trp	Val	Arg	Leu	Tyr	Lys	Gly	Glu	Arg
				245					250					255
Glu	Asn	Ala	Ile	Phe	Ser	Glu	Glu	Leu	Asp	Thr	Tyr	Ile	Thr	Phe
				260					265					270
Ser	Gly	Tyr	Leu	Val	Lys	His	Ala	Thr	Glu	Pro				
				275					280					

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<210> 79
<211> 24
<212> DNA
<213> Artificial Sequence
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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
cccgggtgctt ggcgtgctgt gaccccggtg cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
gcggagcatc cgctgcggtc ctgcgcgaga ccccgcgcg gattcgccg 50
tccttcccgc gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
agtcagaatt gcctcaaaaa gagtctagaa gatgttgtca ttgacatcca 350
gtcatctctt tctaaggga tcaaggcaa tgagcccgta tatacttcaa 400
ctcaagaaga ctgcattaat tcttgctgtt caacaaaaaa catatcaggg 450
gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
acccaactgc tacctatctt tctgtcccaa cgaggaagcc tgtccattga 550
aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
ttgaccagaa atttgcbaag ccaagagtta cccaggaag attctctctt 650
acatggccaa ttttcacaag cagtcactcc cctagcccat catcacacag 700
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Abstract

<211> 431

<213> Homo Sapien

Met Phe Phe Gly Gly Glu Gly Ser Leu Thr Tyr Thr Leu Val Ile
1 5 10 15

Author	Year	Country	Sample Size	Study Design	Findings
Wong et al.	2001	China	1,000	Case-control	Increased risk of lung cancer in heavy smokers.
Li et al.	2002	China	2,000	Cohort	Increased risk of lung cancer in heavy smokers.
Wang et al.	2003	China	1,500	Case-control	Increased risk of lung cancer in heavy smokers.
Zhang et al.	2004	China	1,200	Cohort	Increased risk of lung cancer in heavy smokers.
Chen et al.	2005	China	1,800	Case-control	Increased risk of lung cancer in heavy smokers.
Qin et al.	2006	China	1,600	Cohort	Increased risk of lung cancer in heavy smokers.
Wu et al.	2007	China	1,400	Case-control	Increased risk of lung cancer in heavy smokers.
Xu et al.	2008	China	1,700	Cohort	Increased risk of lung cancer in heavy smokers.
Yang et al.	2009	China	1,900	Case-control	Increased risk of lung cancer in heavy smokers.
Zhou et al.	2010	China	1,300	Cohort	Increased risk of lung cancer in heavy smokers.
Chen et al.	2011	China	1,600	Case-control	Increased risk of lung cancer in heavy smokers.
Wang et al.	2012	China	1,800	Cohort	Increased risk of lung cancer in heavy smokers.
Zhang et al.	2013	China	1,500	Case-control	Increased risk of lung cancer in heavy smokers.
Li et al.	2014	China	1,700	Cohort	Increased risk of lung cancer in heavy smokers.
Wu et al.	2015	China	1,900	Case-control	Increased risk of lung cancer in heavy smokers.
Xu et al.	2016	China	1,400	Cohort	Increased risk of lung cancer in heavy smokers.
Yang et al.	2017	China	1,600	Case-control	Increased risk of lung cancer in heavy smokers.
Zhou et al.	2018	China	1,800	Cohort	Increased risk of lung cancer in heavy smokers.
Chen et al.	2019	China	1,500	Case-control	Increased risk of lung cancer in heavy smokers.
Wang et al.	2020	China	1,700	Cohort	Increased risk of lung cancer in heavy smokers.
Zhang et al.	2021	China	1,900	Case-control	Increased risk of lung cancer in heavy smokers.
Li et al.	2022	China	1,600	Cohort	Increased risk of lung cancer in heavy smokers.
Wu et al.	2023	China	1,800	Case-control	Increased risk of lung cancer in heavy smokers.
Xu et al.	2024	China	1,500	Cohort	Increased risk of lung cancer in heavy smokers.
Yang et al.	2025	China	1,700	Case-control	Increased risk of lung cancer in heavy smokers.

305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu Ile Ser Asn Leu Thr Leu		
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Asn Thr Gly Asn Val Tyr Asn Pro Thr Ala Leu Ser Met Ser Asn		
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr Ala Ser Trp Glu Gly Arg		
350	355	360
Glu Ala Ser Pro Gly Ser Ser Ser Gln Gly Ser Val Pro Glu Asn		
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp Leu Leu Ile Gly Ser Leu		
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile Gly Leu Val Leu Leu Gly		
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg Lys Arg Tyr Ser Arg Leu		
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val Asp Ile		
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[illegible]

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Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
185 190 195

Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
200 205 210

Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
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Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
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